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WHAT IS CLAIMED IS:

1. A method of fabricating a nitride semiconductor device comprising:

plural steps of respectively growing plural nitride
5 semiconductor layers on a substrate; and

between a step of growing one nitride semiconductor layer and a step of growing another nitride semiconductor layer adjacent to said one nitride semiconductor layer among the plural steps, a step of changing a growth ambient pressure from a first growth
10 ambient pressure to a second growth ambient pressure different from said first growth ambient pressure.

2. The method of fabricating a nitride semiconductor device of Claim 1,

wherein said first growth ambient pressure or said second
15 growth ambient pressure is a pressure lower than the atmospheric pressure.

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3. The method of fabricating a nitride semiconductor device of Claim 2,

wherein, among said plural nitride semiconductor layers,
20 a nitride semiconductor layer grown under said pressure lower than the atmospheric pressure includes aluminum or magnesium.

4. The method of fabricating a nitride semiconductor device of Claim 1,

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wherein one of said first growth ambient pressure and said
25 second growth ambient pressure is a pressure higher than the

atmospheric pressure and the other is a pressure lower than the atmospheric pressure.

5. The method of fabricating a nitride semiconductor device of Claim 4,

5 wherein, among said plural nitride semiconductor layers, a nitride semiconductor layer grown under said pressure higher than the atmospheric pressure includes indium.

6. The method of fabricating a nitride semiconductor device of Claim 5,

10 wherein said nitride semiconductor layer including indium is an active layer.

7. The method of fabricating a nitride semiconductor device of Claim 1,

15 wherein the step of growing said one nitride semiconductor layer and the step of growing said adjacent nitride semiconductor layer are conducted at different growth temperatures.

8. A method of fabricating a nitride semiconductor device comprising the steps of:

forming plural seed crystals on a substrate;

20 selectively growing, on said substrate, a first nitride semiconductor layer from said plural seed crystals under a first growth ambient pressure; and

growing, on said first nitride semiconductor layer, a second nitride semiconductor layer under a second growth ambient pressure
25 different from said first growth ambient pressure.

9. The method of fabricating a nitride semiconductor device
of Claim 8, *B*

wherein said first growth ambient pressure is lower than
the atmospheric pressure.

5 10. The method of fabricating a nitride semiconductor device
of Claim 8,

wherein a first growth temperature employed for growing said
first nitride semiconductor layer and a second growth temperature
employed for growing said second nitride semiconductor layer are
10 different from each other.

11. The method of fabricating a nitride semiconductor device
of Claim 10,

wherein said second growth temperature is higher than said
first growth temperature.

15 12. The method of fabricating a nitride semiconductor device
of Claim 8, *B*

wherein said first nitride semiconductor layer includes
aluminum.